

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****In re United States Patent Application of:****Applicant:** Frank-Gunter Niemz, et al.**Application No.:** 10/089,143**Date Filed:** March 26, 2002**Title:** METHOD AND DEVICE FOR  
REGULATING THE COMPOSITION  
OF SOLUTION(S)**Docket No.:** 4197-116**Examiner:** Not Yet Assigned**Art Unit:** Not Yet Assigned**23448**

PATENT &amp; TRADEMARK OFFICE

**FIRST CLASS MAIL CERTIFICATE**

I hereby certify that I am mailing the attached documents to the Commissioner for Patents on the date specified, in an envelope addressed to the Commissioner for Patents, Washington, DC 20231, and First Class Mailed under the provisions of 37 CFR 1.8.

Lee Ann Brown

June 19, 2002

Date of Mailing

**SUBMISSION OF ENGLISH TRANSLATION OF THE INTERNATIONAL  
PRELIMINARY EXAMINATION REPORT FOR PCT/DE00/03409 IN U.S. PATENT  
APPLICATION NO. 10/089,143**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed please find the English translation of the International Preliminary Examination Report for PCT/DE00/03409 in U.S. Patent Application No. 10/089,143.

Respectfully submitted,

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## PATENT COOPERATION TREATY

**PCT**  
**NOTIFICATION OF TRANSMITTAL**  
**OF COPIES OF TRANSLATION**  
**OF THE INTERNATIONAL PRELIMINARY**  
**EXAMINATION REPORT**

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

BRANDENBURG, Thomas  
 Frankfurter Str. 68  
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 ALLEMAGNE

Eingang  
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07. Juni 2002

First  
 VV

Date of mailing (day/month/year) 28 May 2002 (28.05.02)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference A/c 5/PCT	
International application No. PCT/DE00/03409	International filing date (day/month/year) 29 September 2000 (29.09.00)
Applicant ALGERU SCHWARZA GMBH et al	

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

**2. Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

CA,CN,JP,KP,KR,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer ENGER Charlotte Telephone No. (41-22) 338.83.38
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**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference Alc 5/PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE00/03409	International filing date (day/month/year) 29 September 2000 (29.09.00)	Priority date (day/month/year) 06 October 1999 (06.10.99)
International Patent Classification (IPC) or national classification and IPC D01F 2/00		
Applicant ALCERU SCHWARZA GMBH		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>5</u> sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 14 April 2001 (14.04.01)	Date of completion of this report 14 January 2002 (14.01.2002)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE00/03409

## I. Basis of the report

1. This report has been drawn on the basis of (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*).

☐ the international application as originally filed.

☒ the description, pages 1.3-7, as originally filed,  
pages \_\_\_\_\_, filed with the demand,  
pages 2.2a, filed with the letter of 27 September 2001 (27.09.2001),  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the claims, Nos. \_\_\_\_\_, as originally filed,  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand,  
Nos. 1-7, filed with the letter of 27 September 2001 (27.09.2001),  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the drawings, sheets/fig 1/1, as originally filed,  
sheets/fig \_\_\_\_\_, filed with the demand,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/DE 00/03409

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-7	YES
	Claims		NO
Inventive step (IS)	Claims	1-7	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

## 2. Citations and explanations

All the method and device features of independent Claims 1 and 6, in particular the regulating variables defined in the characterising parts of said claims, are neither described nor alluded to in the cited prior art.

The criterion of novelty (PCT Article 33(2)) is therefore satisfied.

The subject matter of the application (method and device) also involves an inventive step for the following reasons (PCT Article 33(3)):

A method and a device as per the preambles to the present Claims 1 and 6 are known from D1 (WO-A-94/28212). In contrast to the invention, however, in D1 an optical property, namely the index of refraction, is measured and used for process control (regulation). D1 does not allude to other physical parameters for this purpose.

D2 (EP-A-0 254 803) describes a simple, economical method for producing pure, aqueous amine oxide/cellulose solutions. It is emphasised in

column 2, lines 43-52 that the concentration of the end product can be monitored (regulated) with the aid of the index of refraction or **density measuring** and the solution thus obtained can be used directly for all known applications (the production of cellulose fibres is mentioned in column 1, line 5).

D2 therefore equates the measuring of an optical property of the solution with a non-optical solution property.

Nevertheless, for the following reasons it would not have been obvious for a person skilled in the art to replace the index of refraction used in D1 to monitor the concentration of the solution with the measuring of a non-optical solution property (density), as described in D2.

The density measuring proposed in D2 is carried out on two-component solutions (water/amine oxide solution) containing peroxide impurities, that is not on a cellulose-containing spinning solution, but rather on pure, slightly coloured starting material. In contrast, in the present application the spinning solution, that is a ternary mixture (cellulose/amine oxide/water), is regulated by measuring specific physical properties. Said mixture can also be coloured to a large extent and therefore in such a case the measuring of optical properties would not produce the desired aim.

The teaching of D2 does not suggest to a person skilled in the art in an obvious manner transferring the density measuring to the aforementioned ternary mixture or the improvements associated therewith

(rapid, optimum monitoring of the spinning solution composition and the resultant improved properties of the shaped body produced).

Consequently, a combination of the above two documents would lead to the subject matter of the present application only with knowledge of the invention (*ex post facto* analysis).

Identical considerations apply to the claimed device. If the necessary modification to the measuring device known from D1 involves an inventive step, the same must apply to the corresponding apparatus.